

Claims

1. An aerodynamic lifting-thrusting propulsion device characterized in that it has a frame with an axis, relative to which a frame is arranged with a possibility of rotation, at least two aerodynamic surfaces, each of which is mounted on a cardan joint with a possibility of oscillations synchronously with a rotation of the frame, the cardan joint is connected to a rod mounted on the frame, axes of a cross of the cardan joint are mutually perpendicular and are located correspondingly in two mutually perpendicular planes intersecting along the axis of the rod, wherein one of them extends through the axis of rotation of the frame and the axis of the rod, the rod is mounted parallel to the axis of the frame, the axis of the frame is connected with each aerodynamic surface by a mechanical transmission which provides a rotation of the aerodynamic surface synchronously and opposite to the rotation of the frame.
2. A device according to claim 1, characterized in that each aerodynamic surface is twisted relative to axes parallel to axes of the cross and extending through the aerodynamic surface.

Abstract

The inventive aerodynamic lifting-thrusting propulsion device comprises a frame 1 provided with an axis 2, said frame 1 being arranged with respect to the axis 2 in such a way that it is rotatable. At least two aerodynamic surfaces 3 are fixed to a fork joint in such a way that they oscillate synchronously with the rotation of the frame 1, the fork joint being fixed to a rod 5 which is arranged on said frame 1. The axis 2 is connected to each aerodynamic surface 3 by means of a mechanical transmission which enables the aerodynamic surface 3 to rotate synchronously and oppositely with respect to the rotation of the frame and the rod 5. The oscillation of the aerodynamic surfaces 3 is carried out by a mechanical copying device. Each aerodynamic surface can rotate around the axes which are parallel to the axes of the spider of the cardan joint and pass through the aerodynamic surface 3. The frame 1 and the aerodynamic surfaces 3 rotate around the axis 2 with the aid of a rotary actuator. Each aerodynamic surface 3 synchronously rotates, by means of the mechanical transmission in a direction opposite the circular motion thereof at an angle velocity which is equal to the angle velocity of said circular motion, whereby producing the progressive motion of the aerodynamic surfaces and regularly distributing aerodynamic forces therethrough. Each aerodynamic surface 3, synchronously with the rotation thereof, oscillates with the aid of the mechanical copying device thereby producing a horizontal thrust simultaneously with a lifting force.